Bronchial Asthma



Definition

is the common <u>chronic</u> inflammatory <u>disease</u> of the <u>airways</u> characterized by variable and recurring symptoms, reversible airflow obstruction, and <u>bronchospasm</u>.

Asthma classified as :

- ✤ <u>atopic</u> (extrinsic).
- *non-atopic (intrinsic).

It is thought to be caused by a combination of <u>genetic</u> and environmental factors

Ø Problems & Hypotheses

1-Shortness of breath

- Chest pain, coronary artery disease •
- Viral/bacterial infection
- Bronchial asthma
- Muscles Trauma
- Anemia
- Pneumothorax
- Rhinitis
- Pneumonia
- Defect in Pherinic nerve
- Foeign body in nasla cavity
- Bronchoncoconstriction
- Increase in mucous secretions
- Allergic reaction
- Bronchitis
- Emphysema
- Pleural effusion
- Pleurisy
- Pulmonary embolism
- Pulmonary hypertension
- Pericarditis
- Neuromuscular disorder
- Panic attack

2-Cough

- Smoking
- Infection of respiratory tract
- Bronchial asthma
- Congestive heart failure
- Common cold
- Bronchitis
- Emphysema
- Exposure to dust
- Allergy
- Bronchoconstriction
- Irritation of mucosa
- Pulmonary edema

3-Feels tired

- Insomnia "Lack of sleep"
- Anemia
- Viral/bacterial infection
- Muscle weakness
- Hypoxia
- Diabetes
- Malnutrition
- Hypothyroidism
- Ischemia
- Psychogenic problem"Stress, Depression"

Ø Questions to ask the patient

- Any history of smoking?
- Any history of medication?
- Any history of allergies?
- Any chronic or recent infection?
- Any history of chest pain?
- Any history of exposure to dust?
- Family history?
- Social history?
- Any blood in cough?
- If the symptoms worsen at a specific time?
- Any history of surgery?



- <u>Allergic</u> (extrinsic/ atopic)
- Infective(Intrinsic)
- **Psychological factors :**
- like anxiety, emotional stress etc...
- Occupational asthma:
- This can occur in certain industries in which there is exposure to metallic dusts



Recurrent episode of <u>Dyspnea</u> (shortness of <u>breath</u>).

<u>Protective</u> cough(with <u>sputum</u>).

Wheezing.

Chest pain.

Tests and Diagnosis

□There are two types of <u>investigations</u>:

- Laboratory investigation : Sputum <u>culture</u>, cytology.
- ★<u>Radiology</u> investigation : Chest <u>x-ray</u>, <u>ST-scan</u> of the chest, <u>MRI</u> of the chest.

□Spirometry test : (FEV1 ...)

Treatment

1) Bronchodilators:

Epinephrine;Salbutamol; Salmetrol, Theophyline, Ipratropium.

2) Anti-inflammatory drugs

Mast cell stabilizers , Corticosteriods , Leukotriene-modifying agents

3) Drugs for Cough

4) Antibiotics

5)Anti-immunoglobulin E

COMPLICATIONS

- ≻Apart from <u>chronicity</u>, usually <u>no</u> complications.
- ▶<u>Pneumothorax</u>.
- ⊳ <u>emphysema.</u>

≻pulmonary <u>collapse</u> may occur in very <u>advanced</u> cases.

Prevention

□Avoid the <u>allergen</u> you are sensitive to.

Doing regular <u>light</u> exercise like brisk walking or jogging. <u>Heavy</u> exercise can precipitate an <u>attack</u> of asthma, so doing <u>mild</u> exercise <u>without</u> putting too much strain on the body.

Learn breathing exercises to <u>improve</u> your lung <u>capacity</u>.

□ Eat <u>healthy</u>, nourishing and well balanced <u>diet</u>.

Risk Factors

≻ Family history of <u>eczema</u>.

≻<u>Allergies</u>.

≻Family history of <u>asthma</u>.

≻Obesity.

≻<u>Smoking</u>.